

Amendments to the Claims

Claims 1-7 (*Cancelled*)

8. (*Previously Presented*) Apparatus for transferring chips from a wafer to a lead frame, comprising:

a wafer-positioning device for positioning a wafer with chips surfaces thereof extending in a first plane;

a lead frame positioning device for positioning a lead frame with a bond surface thereof extending in a second plane which is at a first angle of between 0° and 180° to the first plane, the first plane and the second plane intersecting at an intersection line;

at least one rotatable transfer assembly comprising at least two transfer heads for picking up a first chip from the wafer by one of the transfer heads in a chip pick-up position, while bonding a second chip to the lead frame by another one of the transfer heads in a chip bonding position; transferring the first chip by said one of the transfer heads from the chip pick-up position to the chip bonding position; and bonding the first chip on the lead frame by said one of the transfer heads in the chip bonding position, while picking up a third chip from the wafer by another one of the transfer heads in the chip pick-up position,

a transfer assembly motor for driving the rotatable transfer assembly about an axis of rotation which extends in a third plane at half of first angle to the first plane and the second plane, respectively, and the axis of rotation extending at a second angle of at least 0° and at most 90° to said intersection line.

9. (*Previously Presented*) Apparatus according to claim 8, characterized in that the transfer heads are rotatable essentially along one circle in a fourth plane at right angles to the axis of rotation of the transfer assembly.

10. (*Previously Presented*) Apparatus according to claim 9, characterized in that the transfer heads are spaced regularly along said circle.

11. *(Previously Presented)* Apparatus according to claim 8, characterized in that the first angle is 90°.

12. *(Previously Presented)* Apparatus according to claim 8, characterized in that the second angle is 0°.

13. *(Previously Presented)* Apparatus according to claim 8, characterized in that the number of transfer heads is four.

14. *(Previously Presented)* Apparatus according to claim 8, characterized in that the transfer assembly is rotated in one direction.

15. *(Previously Presented)* Apparatus according to claim 8, characterized in that each transfer head comprises a collet which, in the chip pick-up position, is movable in a direction essentially at right angles to the first plane, and in the chip bonding position, is movable in a direction essentially at right angles to the second plane.

16. *(Previously Presented)* Apparatus according claim 15, characterized in that the transfer assembly comprises a counterweight for each collet, each collet being coupled to its corresponding counterweight through a mechanical coupling for compensating radial forces exerted on the collet relative to said axis of rotation.

17. *(Previously Presented)* Apparatus according to claim 16, characterized in that the mechanical coupling is adapted to be driven by a collet drive motor for moving the collet radially relative to said axis of rotation.

18. *(Previously Presented)* Apparatus according to claim 17, characterized in that the transfer assembly motor has the same axis of rotation as the collet drive motor.

19. *(Previously Presented)* Apparatus according to claim 16, characterized in that the counterweight for one collet is another collet of the transfer assembly.

20. *(Previously Presented)* Apparatus according to claim 19, characterized in that said one collet is situated oppositely relative to said other collet with respect to said axis of rotation.

21. *(Previously Presented)* Apparatus according to claim 16, characterized in that the mechanical coupling is a wire.

22. *(Previously Presented)* Apparatus according to claim 21, characterized in that a support of each collet relative to the transfer assembly comprises a pressure spring pretensioning the wire.

23. *(Previously Presented)* Apparatus according to claim 22, characterized in that the pressure spring has a low stiffness.

24. *(Previously Presented)* Apparatus according to claim 22, characterized in that the pretension force is greater than a bonding force to be applied on a chip on a lead frame by the collet of a transfer head.

25. *(Previously Presented)* Apparatus according to claim 8, characterized in that the rotatable transfer assembly is rotatable around a transfer assembly stator, a narrow circumferential gap being provided between the rotatable transfer assembly and the transfer assembly stator, the transfer assembly stator comprising groove sections facing the gap for at least the chip pick-up position and the chip bonding position, respectively, each groove section extending in the circumferential direction and being in communication with a first gas duct, each transfer head of the rotatable transfer assembly comprising at least one collet having a pick-up opening, the pick-up opening being in communication with the gap through a second gas duct.

26. *(Previously Presented)* Apparatus according to claim 25, characterized in that the number of groove sections is equal to the number of transfer heads.

27. *(Previously Presented)* Apparatus according to claim 25, characterized in that each first duct is provided with a controllable valve.

28. *(Previously Presented)* Apparatus according to claim 25, characterized in that the second gas duct at its end facing the gap is provided with a bridging groove extending in the circumferential direction, the bridging groove being adapted to bridge two adjacent groove sections of the transfer assembly stator (100).

Claims 29-30 *(Cancelled)*